

Title (en)  
RF power transistor with impedance matched output electrode

Title (de)  
RF-Leistungstransistor mit impedanzangepasster Ausgangselektrode

Title (fr)  
Transistor de puissance haute fréquence avec impédance de sortie adaptée

Publication  
**EP 1750298 B1 20120118 (EN)**

Application  
**EP 06015435 A 20060725**

Priority  
US 18961505 A 20050726

Abstract (en)  
[origin: EP1750298A2] A power transistor, having: a semiconductor having an electrode formed thereon, wherein the electrode comprises a plurality of interdigitated transistors each having input and output terminals; a first output blocking capacitor having a first terminal electrically coupled to the output terminals of the interdigitated transistors of the semiconductor and a second terminal electrically coupled to ground; and a second output blocking capacitor having a first terminal electrically coupled to the first terminal of the first output blocking capacitor and a second terminal electrically coupled to ground. A method for amplifying signals, the method having: forming a power transistor on a semiconductor, wherein the power transistor comprises a plurality of interdigitated transistors; shunting an output signal from the plurality of interdigitated transistors; and double-shunting an output signal from the plurality of interdigitated transistors, wherein the shunting and double-shunting generates first and second harmonic terminations at a die plane of the power transistor.

IPC 8 full level  
**H01L 21/66** (2006.01); **H01L 23/50** (2006.01); **H01L 23/66** (2006.01); **H03F 1/56** (2006.01)

CPC (source: EP KR US)  
**H01L 23/66** (2013.01 - EP KR US); **H01L 24/48** (2013.01 - KR); **H01L 24/49** (2013.01 - EP KR US); **H03F 1/56** (2013.01 - EP KR US); **H01L 24/48** (2013.01 - EP US); **H01L 2223/6644** (2013.01 - EP KR US); **H01L 2224/48091** (2013.01 - EP KR US); **H01L 2224/49175** (2013.01 - EP KR US); **H01L 2924/00** (2013.01 - KR); **H01L 2924/00014** (2013.01 - EP KR US); **H01L 2924/01006** (2013.01 - EP US); **H01L 2924/01013** (2013.01 - EP US); **H01L 2924/01014** (2013.01 - EP US); **H01L 2924/01015** (2013.01 - EP US); **H01L 2924/01029** (2013.01 - EP US); **H01L 2924/01033** (2013.01 - EP US); **H01L 2924/01075** (2013.01 - EP US); **H01L 2924/01082** (2013.01 - EP US); **H01L 2924/01322** (2013.01 - EP KR US); **H01L 2924/10253** (2013.01 - EP US); **H01L 2924/1306** (2013.01 - EP US); **H01L 2924/15787** (2013.01 - EP US); **H01L 2924/19041** (2013.01 - EP US); **H01L 2924/19042** (2013.01 - EP US); **H01L 2924/19043** (2013.01 - EP US); **H01L 2924/30105** (2013.01 - EP US); **H01L 2924/30107** (2013.01 - EP US); **H01L 2924/30111** (2013.01 - EP US); **H01L 2924/30111** (2013.01 - EP US)

C-Set (source: EP US)  
1. **H01L 2224/48091 + H01L 2924/00014**  
2. **H01L 2924/10253 + H01L 2924/00**  
3. **H01L 2924/1306 + H01L 2924/00**  
4. **H01L 2924/15787 + H01L 2924/00**  
5. **H01L 2924/30111 + H01L 2924/00**  
6. **H01L 2924/00014 + H01L 2224/45099**  
7. **H01L 2924/00014 + H01L 2224/05599**

Cited by  
EP2802075A1; EP3113360A4; EP2388815A1; EP3154193A1; EP3742607A1; US9450545B2; US11437972B2; US11689175B2; EP2162914A2; US9866181B2; US11158575B2; US11929364B2; US9722032B2; US9806159B2; US10204992B2

Designated contracting state (EPC)  
DE

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**EP 1750298 A2 20070207; EP 1750298 A3 20070509; EP 1750298 B1 20120118**; CN 1976023 A 20070606; CN 1976023 B 20110309; KR 100797086 B1 20080122; KR 20070014076 A 20070131; US 2007024374 A1 20070201; US 7372334 B2 20080513

DOCDB simple family (application)  
**EP 06015435 A 20060725**; CN 200610136399 A 20060725; KR 20060070284 A 20060726; US 18961505 A 20050726